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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,339	10/31/2001	Varda Treibach-Heck	Call-Tell FX	5246
7590 Varda Treibach heck 843 Lakeshore Drive Redwood City, CA 94065			EXAMINER MURPHY, DILLON J	
			ART UNIT	PAPER NUMBER
			2625	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/25/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/003,339	TREIBACH-HECK ET AL.	
	Examiner	Art Unit	
	Dillon J. Murphy	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- This action is responsive to the amendment filed on November 2, 2006.
- Claims 1-13 are pending. Claims 1, 7, and 11 have been amended.

Allowable Subject Matter

Claim 10 is allowed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US 5416849) in view of Zlotnick (US 6778703).

Regarding claim 1, Huang teaches a method for collecting reports of at least one parameter (Huang, col 2, ln 18-20, form processing) comprising the following steps:

All in a central computer system (Huang, col 4, ln 62- col 5, ln 14, wherein intelligent form processor #25 of fig 5, wherein processing may be centralized or split into modules):

Automatically (Huang, col 4, ln 50-53, automate processes) receiving from any of a plurality of arbitrary senders, via a publicly accessible transmission channel (Huang, col 10, ln 1-9, fax and telephone line), an electronic representation of an image of any of

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a plurality of physical forms, having at least two different layouts (Huang, col 11, ln 43-54, wherein the template must be selected, teaching there is more than one type of form, i.e. layout, stored in buffer #40 or intelligent forms processor #25 or buffer server #40'. Also see col 2, ln 21-23, wherein a template is generated for each form, reading on a plurality of forms), said representation being generated by a standard, conventional image-conversion device, the form having a plurality of data fields (Huang, fig 2c showing form example), each corresponding to an indicator, which may be alphanumeric, of at least a partial value of at least one of the parameters (Huang, col 7, ln 8-15, form comprises alphanumeric indicators and parameters);

Pre-storing an electronic representation of a template for each of the plurality of physical forms (Huang, col 11, ln 43-54, wherein the template must be selected, teaching there is more than one type of form, i.e. layout, stored in buffer #40 or intelligent forms processor #25 or buffer server #40'. Also see col 2, ln 21-23, wherein a template is generated for each form, reading on a plurality of forms. Also see Huang, col 11, ln 55-col 12, ln 50, wherein forms are generated and may be stored in Form Processing Template Definition Program #57A' of fig 5);

Automatically identifying the location of the data fields in the received representation of the image of the form by automatically comparing the received electronic representation of the image of the physical form with at least one of the pre-stored electronic representations of the plurality of templates (Huang, col 5, ln 22-36, use layout of received representation of image to compare with pre-stored electronic

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representation to identify fields. See col 2, ln 21-23, wherein a template is generated for each form, reading on a plurality of forms);

Automatically extracting from the identified data fields the at least partial values of the corresponding parameters (Huang, col 6, ln 47-50, wherein data from fields are extracted); and

Automatically storing the extracted values in a predetermined format in a memory for subsequent processing (Huang, col 7, ln 44-col 8, ln 29, data is extracted and stored in memory as extracted image file #10") as well as the representation of the received physical form as it was received (Huang, col 6, ln 37-46, wherein image file of document image #10' is stored in buffer).

Although Huang teaches identifying the physical form from the electronic representation of its received image after a template is selected (Huang, col 11, ln 43-54, after template is selected, each electronic representation is automatically identified), Huang does not disclose expressly a method for collecting reports comprising automatically and uniquely identifying the physical form from the electronic representation of its received image. Zlotnick, however, teaches a method for collecting reports comprising automatically and uniquely identifying the physical form from the electronic representation of its received image (Zlotnick, col 2, ln 10-13, automatically identifying which of a plurality of different form templates corresponds to a given form document. Also see col 8, ln 59-67, automatically and uniquely identifying the physical form from the electronic representation of its received image).

Huang and Zlotnick are combinable because they are from a similar field of endeavor of automatic form processing. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the method of Zlotnick comprising automatically identifying which of the plurality of form templates corresponds to a given form document with the method of Huang comprising collecting reports in a central computer system by automatically receiving a plurality of types of forms from a plurality of senders via a standard communication device, pre-storing templates for each form, automatically identifying the location of data fields from by comparing the received form with the template, automatically extracting the identified data fields, and automatically storing the extracted values. The motivation for doing so would have been to accurately and quickly identify forms and templates for form processing while allowing for a wide variety of forms to be input in any order (Zlotnick, col 1, ln 11-43). Therefore, it would have been obvious to combine Zlotnick with Huang to obtain the invention as specified in claim 1.

Regarding claim 2, which depends from claim 1, the combination of Huang and Zlotnick teaches a method for collecting reports in which the electronic representation of the image of the physical form is generated using a conventional facsimile machine, whereby the transmission channel is a standard telephone line (Huang, col 10, ln 1-9, wherein image may be input using fax via a standard telephone line).

Regarding claim 3, which depends from claim 2, the combination of Huang and Zlotnick teaches a method for collecting reports further including the step of transferring the stored extracted values to an external recipient via a network, all processing of the

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physical form after transmission by the sender up to and including transfer to the external recipient via the network thereby taking place automatically (Huang, col 10, ln 43-65, wherein extracted values #48 are sent to external recipient #32 along with complete form image #10" over LAN #20 for error correction).

Regarding claim 11, claim 11 recites identical features as claim 1 except claim 11 is a system claim. Thus, arguments similar to that presented above for claim 1 are equally applicable to claim 11. Applicant is further directed to Huang teaching intelligent forms processor #25 of fig 5, i.e. a central server, fax and network adapter #320 (also fig 5), i.e. I/O means, and form processing means #25 comprising various sub-modules for form processing, as explained in claim 1.

Claim 12 recites identical features as claim 2 except claim 12 is a system claim. Thus, arguments similar to that presented above for claim 2 are equally applicable to claim 12.

Claims 4, 5, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US 5416849) in view of Zlotnick (US 6778703) and further in view of Al-Hussein (US 5809167).

Regarding claim 4, which depends from claim 1, the combination of Huang and Zlotnick teaches a method for collecting reports comprising, all in a central computer system, automatically receiving the form from a plurality of senders, pre-storing an electronic template for each of the forms, automatically identifying the physical form, automatically identifying the location of the data fields, automatically extracting values

from the identified data fields, and automatically storing the extracted values and the complete received image. The combination of Huang and Zlotnick does not disclose expressly the method further comprising a method in which each data field indicates a quantifiable or itemizable value of a corresponding one of the parameters, further including the additional step of storing the received electronic representation of the image of the physical form in the memory, whereby non-quantifiable and non-itemizable entries by the user onto the physical form are made available for subsequent review.

Al-Hussein, however, teaches a method in which each data field indicates a quantifiable or itemizable value of a corresponding one of the parameters, further including the additional step of storing the received electronic representation of the image of the physical form in the memory (Al-Hussein, col 7, ln 44-51, individual characters are extracted from text regions in the page and stored as a text file), whereby non-quantifiable and non-itemizable entries by the user onto the physical form are made available for subsequent review (Al-Hussein, col 10, 46-55, entire image, including non-quantifiable and non-itemizable entries, is stored in memory and associated with text file of extracted information. Upon searching the extracted text, it is possible to bring up non-quantifiable information for subsequent review).

Huang, Zlotnick and Al-Hussein are combinable because they are from a similar field of image processing over a network. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of Al-Hussein comprising storing the received image in memory, whereby non-quantifiable and non-itemizable entries by the user onto the physical form are made available for

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subsequent review with the method of Huang and Zlotnick comprising, all in a central computer system, automatically receiving the form from a plurality of senders, pre-storing an electronic template for each of the forms, automatically identifying the physical form, automatically identifying the location of the data fields, automatically extracting values from the identified data fields, and automatically storing the extracted values and the complete received image. The motivation for doing so would have been to reduce the possibility of inadvertently discarding information or misclassifying data. Additionally, the suggestion for doing so was given by Huang in fig 2D, wherein non-quantifiable and non-itemizable entries #45 are stored along with quantifiable and itemizable entries #15, for example, and wherein entries are made available for subsequent review, col 10, ln 52-54, for example. Therefore, it would have been obvious to combine Al-Hussein with the combination of Huang and Zlotnick to obtain the invention as specified in claim 4.

Regarding claim 5, which depends from claim 1, the combination of Huang, Zlotnick and Al-Hussein further teaches a method further including the step of storing recipient-entered annotations in the memory along with the stored extracted values of the respective received form (Al-Hussein, col 10, ln 40-55, entire image, including annotations, is stored in memory along with associated text file of extracted information. Upon searching the extracted text, it is possible to bring up non-quantifiable information for subsequent review. Huang and Al-Hussein are combinable for a similar reason as explained above in the rejection of claim 4).

Claim 13 recites identical features as claim 5 except claim 13 is a system claim. Thus, arguments similar to that presented above for claim 5 are equally applicable to claim 13.

Claims 6, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US 5416849) in view of Zlotnick (US 6778703) and further in view of Shepard (US 4021777).

Regarding claim 6, which depends from claim 1, the combination of Huang and Zlotnick teaches a method for collecting reports comprising, all in a central computer system, automatically receiving the form from a plurality of senders, pre-storing an electronic template for each of the forms, automatically identifying the physical form, automatically identifying the location of the data fields, automatically extracting values from the identified data fields, and automatically storing the extracted values and the complete received image. The combination of Huang and Zlotnick does not disclose expressly a method further comprising associating at least two different physical forms with different senders, and automatically determining the identity of each sender based on the received image of the physical form. Shepard, however, teaches a method comprising associating at least two different physical forms with different senders, and automatically determining the identity of each sender based on the received image of the physical form (Shepard, col 5, ln 16-18, form with ID number is associated with a specific customer. The method as taught by Shepard comprises processing multiple

forms from multiple customers without a loss in operating efficiency, as seen in col 8, In 44-53).

Huang, Zlotnick and Shepard are combinable because they are from a similar field of endeavor of form processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of Shepard comprising associating forms with different senders and automatically determining the identity of each sender based on the received image with the method of Huang and Zlotnick teaching a method for collecting reports comprising, all in a central computer system, automatically receiving the form from a plurality of senders, pre-storing an electronic template for each of the forms, automatically identifying the physical form, automatically identifying the location of the data fields, automatically extracting values from the identified data fields, and automatically storing the extracted values and the complete received image. The motivation for doing so would have been to organize the system for multiple users and to reduce the burden of classifying from the operator. Therefore, it would have been obvious to combine Shepard with the combination of Huang and Zlotnick to obtain the invention as specified in claim 6.

Regarding claim 7, which depends from claim 6, the combination of Huang, Zlotnick and Shepard teaches a method for collecting reports further comprising:

Automatically identifying the received forms by performing a best-fit comparison of each received electronic representation of the image of one of the physical forms with the stored electronic representations of the templates (Huang, col 22-36, wherein layout, for example, is used to identify received forms with stored electronic

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representation. A best-fit comparison is inherently performed, as evidenced by the skew analysis information determined in col 7, ln 26-32, wherein even with skew in received image, a best-fit determination of physical form is determined through comparison. Also see Zlotnick, col 2, ln 38-52, best fit matching is performed to identify the form and corresponding template, and see col 8, ln 63-67 teaching a best-fit comparison).

Regarding claim 9, which depends from claim 1, the combination of Huang, Zlotnick and Shepard teaches a method for collecting reports in which:

The electronic representation of the image of the physical form is generated using a conventional facsimile machine (Huang, col 10, ln 1-9, fax machine);

The transmission channel is a standard telephone line (Huang, col 10, ln 1-9, input via fax over telephone line);

At least one of the parameters is time and the physical form is a time sheet (Shepard, col 5, ln 1-13, business form is a conventional time sheet comprising at least one parameter that is time).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US 5416849) in view of Zlotnick (US 6778703) and further in view of Luther et al. (US 5721940):

Regarding claim 8, which depends from claim 1, the combination of Huang and Zlotnick teaches a method for collecting reports comprising, all in a central computer system, automatically receiving the form from a plurality of senders, pre-storing an

electronic template for each of the forms, automatically identifying the physical form, automatically identifying the location of the data fields, automatically extracting values from the identified data fields, and automatically storing the extracted values and the complete received image. The combination of Huang and Zlotnick does not disclose expressly a method for collecting reports in which the step of automatically identifying the location of the data fields comprises the following sub-steps: storing an electronic representation of a template of each of a plurality of physical forms; automatically identifying each received form by performing a best-fit comparison of each received electronic representation of the image of the corresponding physical form with the stored electronic representations of the templates; automatically registering the received electronic representation of the received physical form image with the best-fit electronic template representation; and matching the data fields in the received electronic representation of the received physical form image with corresponding data fields in the best-fit electronic template representation. Luther, however, teaches a method for collecting reports in which the step of automatically identifying the location of the data fields comprises the following sub-steps:

Storing an electronic representation of a template of each of a plurality of physical forms (Luther, col 4, ln 23-30, wherein templates of each form are included in a form dictionary. Also see Huang, col 2, ln 21-23, wherein a template is generated for each form, reading on a plurality of forms, and suggestion combination with Luther);

Automatically identifying each received form by performing a best-fit comparison of each received electronic representation of the image of the corresponding physical

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form with the stored electronic representations of the templates (Luther, col 7, ln 5-20, wherein completed form profile is profile of received form, and completed form profile is compared with a form in the form dictionary. If there is a predetermined level of invariant elements reached, i.e. there is a best match, then the received form is identified to match a template. Also see Zlotnick, col 2, ln 10-13, automatically identifying which of a plurality of different form templates corresponds to a given form document. Also see col 8, ln 59-67 of Zlotnick, teaching automatically and uniquely identifying the physical form from the electronic representation of its received image. The best-fit comparison of Zlotnick suggests combination with Luther);

Automatically registering the received electronic representation of the received physical form image with the best-fit electronic template representation (Luther, col 7, ln 17-19, wherein received form is registered with best-fit template); and

Matching the data fields in the received electronic representation of the received physical form image with corresponding data fields in the best-fit electronic template representation (Luther, col 5, ln 10-34, wherein the form of fig 4a is scanned in and a form profile is made to characterize the data fields of the blank form in fig 4b. In col 6, ln 48-58, wherein when a completed form is received as shown in fig 6, the completed form is characterized as shown in fig 8a to identify the data fields. To identify the form, the characteristics of the data fields for the blank form and completed form are matched in a best fit manner, col 7, ln 5-13).

Huang, Zlotnick and Luther are combinable because they are from a similar field of endeavor of for processing. At the time of the invention, it would have been obvious

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to a person of ordinary skill in the art to combine the method of Luther comprising storing a template for each physical form, identifying each received form by performing a best-fit comparison, registering the received form with the best-fit template, and matching the data fields in the received form with the corresponding data fields in the template with the method of Huang and Zlotnick teaching a method for collecting reports comprising, all in a central computer system, automatically receiving the form from a plurality of senders, pre-storing an electronic template for each of the forms, automatically identifying the physical form, automatically identifying the location of the data fields, automatically extracting values from the identified data fields, and automatically storing the extracted values and the complete received image. The motivation for doing so would have been to reduce the time consumption and cost of data entry and retrieval (Luther, col 2, ln 8-13). Therefore, it would have been obvious to combine Luther with Huang to obtain the invention as specified in claim 8.

Response to Arguments

Applicant's arguments, see Remarks, page 9, filed November 2, 2006, with respect to the rejection(s) of claim(s) 1 and 11 under 35 U.S.C. 102 have been fully considered and are persuasive in part. On Page 9, Applicant's argues that the template of Huang must be selected by the user before processing and accordingly Huang does not read on the limitation of "automatically and uniquely identifying the physical form from the electronic representation of its received image". While conceding that Huang performs this identification manually, the examiner notes that based on the mere fact

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that because the processing is automatic, that is not enough to distinguish it from the prior art. See MPEP 2144.04. See also *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958). The court held that broadly providing an automatic or mechanical means to replace a manual activity, which accomplished the same result, is not sufficient to distinguish over the prior art. Additionally, Applicant argues on page 9 that Huang's processing method operates with only one available template at a time. The examiner respectfully disagrees, citing Huang at col 11, ln 43-54, wherein the template must be selected, teaching there is more than one type of form, i.e. layout, stored in buffer #40 or intelligent forms processor #25 or buffer server #40'. Also see Huang at col 2, ln 21-23, wherein a template is generated for each form, reading on a plurality of forms. In light of these arguments but despite the Venner ruling, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Zlotnick (US 6778703).

Regarding Applicant's arguments on pages 10-11, a similar argument as explained above applies.

On page 12, Applicant argues it is not obvious or practical to combine the teachings of Shepard and Huang. In response to applicant's argument, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21

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USPQ2d 1941 (Fed. Cir. 1992). In this case, the references are combinable by the nature of the problem to be solved, namely automatically extracting data from electronic representations of forms. Additionally, on pages 11 and 12, Applicant argues a literal combination of the systems of Huang and Shepard would not function, while examiner points out the systems are only combined as discussed above in the rejection of claims 6, 7, and 9.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

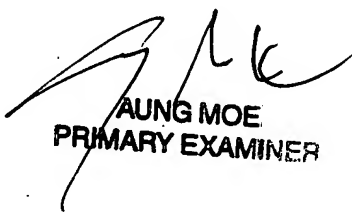
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dillon J. Murphy whose telephone number is (571) 272-5945. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571) 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DJM
January 17, 2007


AUNG MOE
PRIMARY EXAMINER